

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-17, 19-28, 48-60, 62 and 64-66 are pending in the present application. Claims 1, 26 and 48 are amended by the present amendment. Support for the amended claims can be found in the original specification, claims and drawings.<sup>1</sup> No new matter is presented.

In the Office Action, Claims 1-17, 19-28, 48-60, 62, 64-66 are rejected under 35 U.S.C. § 102(e) as anticipated by Cheng (U.S. Pub. 2004/0006632).

In response to the above noted rejection, Applicant respectfully submits that amended independent Claims 1, 26 and 48, and pending independent Claims 15 and 60, each recite features that are not disclosed by Cheng.

Regarding amended independent Claims 1, 26 and 48, independent Claim 1, for example, recites an image forming apparatus, comprising:

- ...a plurality of first applications configured to perform image formation processing;
- a platform that exists between the first applications and the hardware resources, the platform including an OS and at least one control service to control an execution of requested processing of the hardware resources according to a function call from the first applications, wherein interprocess communication is performed between the at least one control service and the first applications;
- a virtual machine that is executed as one of the first applications;
- a second application that is executed by the virtual machine; and
- an application management part managing the second application that is executed by the virtual machine.

Independent Claims 26 and 48, while directed to alternative embodiments, are amended to recite similar features. Accordingly, the remarks and arguments presented below are applicable to each of independent Claims 1, 26 and 48.

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<sup>1</sup> e.g., specification at Figs. 1-2 and p. 13, l. 11 – p. 19, l. 9.

As disclosed in an exemplary embodiment at Fig. 1 and p. 13, l. 15 – p. 18, l. 6 of the specification, the image forming apparatus includes a plurality of hardware resources (e.g., resources 101-103) and a platform (e.g., platform 120) including an OS (e.g., general OS 121) and at least one control service (e.g., control services 122-128) to control an execution of requested processing of the hardware resources according to a function call from the first applications. P. 17, ll. 9-16 of the specification further discloses that interprocess communication is performed between the at least one control service and the first applications.

Turning to the applied reference, Cheng describes a method and apparatus for controlling operating system independent applications. For example, a low-level service application 216 is provided for use in a computer 100 having a processor 104 executing an operating system 204, and a universal interface 206 is adapted to launch a virtual machine 212 and an application controller 210 executed by the virtual machine. The application controller is adapted to monitor a configuration file 308 and spawn a virtual machine thread in response to data contained in the configuration file to launch multiple operating system independent application programs within the same virtual machine.

Cheng, however, fails to disclose that his apparatus is an image forming apparatus that includes “hardware resources used for image formation, a plurality of first applications configured to perform image formation processing, and a platform that exists between the first applications and the hardware resources, the platform including an OS and at least one control service to control an execution of requested processing of the hardware resources according to a function call from the first applications, wherein interprocess communication is performed between the at least one control service and the first applications,” as recited in amended independent Claim 1.

In rejecting the features of Claim 1, p. 2 of the Office Action cites, *inter alia*, Fig. 2 and paragraphs [0019]-[0020] of Cheng. These cited portions of Cheng describe an apparatus including a universal interface 206 as a dispatcher service executed on the operating system 204. The universal interface 206 initiates a virtual machine launcher 208 which invokes an operating system thread to run a virtual machine 212. Once the virtual machine 212 has been invoked, any Java application program may be executed by the operating system 204 within that virtual machine. Therefore, the architecture of Cheng does not include “hardware resources used for image formation... [and] and a platform that exists between the first applications and the hardware resources, the platform including an OS and at least one control service to control an execution of requested processing of the hardware resources according to a function call from the first applications, wherein interprocess communication is performed between the at least one control service and the first applications,” required by amended independent Claim 1.

Accordingly, Applicant respectfully requests that the rejection of Claim 1 (and the claims that depend therefrom) under 35 U.S.C. § 102 be withdrawn. For substantially similar reasons, it is also submitted that amended independent Claims 26 and 48 patentably define over Cheng.

Regarding independent Claims 15 and 60, the Office Action asserts that Cheng “clearly teaches these claims to [sic] according to the reasoning set forth in claim 1.” However, independent Claims 15 and 60 recite features not recited in Claim 1, and which patentably define over Cheng.

More particularly, independent Claim 15, for example, is directed to a terminal apparatus that operates an image forming apparatus configured to be able to include a plurality of applications, the terminal apparatus comprising:

a virtual machine;

an application that is executed by the virtual machine and that operates the image forming apparatus ***by using classes for controlling the image forming apparatus, the classes including a function for displaying, on the terminal apparatus, an emulated screen of a screen displayed on an operation panel of the image forming apparatus;*** and

an application management part managing the application that is executed by the virtual machine.

Independent Claim 60, while directed to an alternative embodiment, is amended to recite similar features. Accordingly, the remarks and arguments presented below are applicable to each of independent Claims 15 and 60.

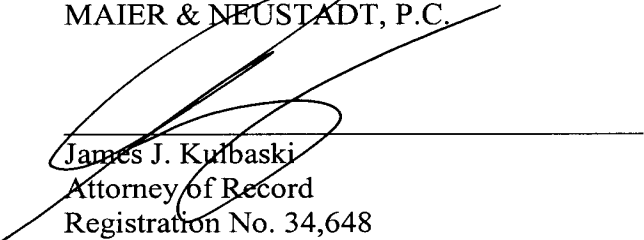
As noted above, the Office Action fails to address the above noted features recited in independent Claims 15 and 60. Moreover, Cheng fails to disclose that terminal that includes “an application that is executed by the virtual machine and ***that operates the image forming apparatus by using classes for controlling the image forming apparatus, the classes including a function for displaying, on the terminal apparatus, an emulated screen of a screen displayed on an operation panel of the image forming apparatus,***” as recited in independent Claim 15.

Accordingly, for at least the reasons discussed above, Applicant respectfully requests that the rejection of independent Claims 1, 15, 26, 48 and 60 (and the claims that depend therefrom) under 35 U.S.C. § 102(e) be withdraw.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-17, 19-28, 48-60, 62 and 64-66 is definite and patentably distinguishing over the applied references. The present application is therefore believed to be in condition for allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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